

Notice of Allowability

Application No.

09/901,751

Applicant(s)

HARMON ET AL.

Examiner

Art Unit

Daniel Pihulic

3662

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the communication filed on 12 April 2004.
2. ☒ The allowed claim(s) is/are 2-42.
3. ☒ The drawings filed on 09 July 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |


Daniel Pihulic
Primary Examiner
Art Unit: 3662

1. Applicant's arguments filed 12 April 2004 have been fully considered but they are not persuasive with regards to claim 1.

Applicants' first argument is that Kuc's phrase "dolphin-like" means something substantially different than applicants' phrase "similar to those used by dolphins".

Referring to the Webster's Ninth New Collegiate Dictionary, page 1098, the first definition of "similar" is "like". Thus the examiner considers the two phrases to be equivalent.

Applicants further argue that the Kuc system only works in air, but claim 1 does not appear to be limited to underwater use and further claim 19 disclose the use of the system in the atmosphere. Applicants also argue that since being limited to airborne echo location, Kuc's system is not dolphin-like again claim 19 discloses the use of applicants' dolphin-like system in the atmosphere, so limitation of underwater use does not appear to be mandatory.

Applicants next argue that their transmitter is located above the receivers where in Kuc's system the transmitter is located below the receivers. Again these relative transducer locations do not appear to be in claim 1. Applicants again argue Kuc's system is not dolphin-like because the transmitter is located below the receivers, but the examiner is pretty sure that a dolphin's echo location works even if they are swimming upside down or on the other side of the earth, so this relative transducer placement does not appear to mandatory to be dolphin-like.

Applicants further argue that the Kuc system transmits signals with peaks between 50kHz and 60kHz, where applicants transmit signals between 110kHz and 120kHz. Again this frequency limitation does not appear in claim 1. Applicants further argue the utilization of frequencies between 50kHz and 60 KHz is not dolphin-like. Studies of dolphins have disclosed that dolphins transmit and receive frequencies above 15kHz quite well, thus Kuc's system appears to be utilizing frequencies that dolphins can transmit and receive.

Applicants argue that Kuc's system is enabled for a monaural system and for detecting a solitary isolated target. Again claim 1 does not state only detecting a plurality of non-solitary and non-isolated targets and page 728, left column, lines 24-27 recite each receiver processes its signals separately for object recognition.

Applicants next argue that Kuc's system can only detect symmetric object. Again claim does not disclose detecting only asymmetric objects and page 733, right column, line 18 discloses identifying asymmetric objects.

Applicants next argue the difficulties of detecting objects underwater. Again claim 1 is not limited to underwater object detection only.

Finally applicants argue the Kuc system has a robotic arm, rotatable sensors, and a learning mode. Again claim 1 does not state a stationary or even the requirement that robotic arms are not utilized. Applicants argue that the rotatable sensors makes the Kuc system more bat-like than dolphin-like, but the Kuc reference does not disclose continuously rotating the sensors, so when the sensors are stationary the Kuc reference would be more dolphin-like than bat-like. Again claim 1 does not state a system with no learning mode.

2. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the above features upon which applicant relies are not recited in claim 1. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

It is also noted that claim 1 utilizes the term "comprising", so the combination may include elements other than those recited. See *Ex parte Russell*, 153 USPQ 752 (PO BdApp) and *H.K. Porter Co., Inc. v. Gate Rubber Co.*, 187 USPQ 692 (DC Colo).

Further the term "similar" is somewhat indefinite. See *In re Slayter*, 125 USPQ 345 (CCPA).

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3. Proposed claims 2-42 are allowed. With regards to claims 28 & 29 (old claims 5/1 and 6/1) the limitations of acoustic pulses transmitted by the transmitter are replicas of the projector modulation, beamwidth, and waveforms used by *Tursiops truncatus* and the receiver and auditory processing in the receiver closely approximates that used by *Tursiops truncatus* are not disclosed by the Kuc reference which applicant states has a resonant frequency between 50kHz and 60kHz where applicants state their transmitted and received signals having peaks between 110kHz and 120kHz, which the examiner accepts as the definition of the waveforms used by *Tursiops truncatus*.


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Pihulic whose telephone number is 703-306-4168. The examiner can normally be reached on Monday through Thursday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza, can be reached on 703-306-4171.

The fax phone numbers for the organization where this application or proceeding is assigned are:

- 703-872-9306 for official responses, and
- 703-746-3847 for unofficial communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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